IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) An apparatus for embedding data in information material, said data including a plurality of data items, said data items having a different relative importance with respect to each other, said apparatus comprising:

an encoding processor operable to encode each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code; ~~, and~~

a combining processor operable to combine said encoded data items with said information material; and[[,]]

a control processor operable to receive data indicative of said relative importance of said data items to be embedded and to control said encoding processor and said combining processor to encode and embed said data items in accordance with relative importance,

wherein said combining processor is operable in combination with said encoding processor to allocate an amount of a limited data embedding capacity provided by said ~~material information~~ information material, ~~and~~ to generate an amount of said redundant data included in said encoded data items in accordance with said allocation, each of said data items being encoded and embedded to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance, and to embed control information in the information material indicative of at least one of the encoding and embedding applied to said data items.

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2. (Original) An apparatus as claimed in claim 1, wherein said encoding processor includes a modulator operable to generate predetermined data sequences and to encode said data items by modulating said predetermined data sequences with data symbols of said data items, and to combine said modulated predetermined data sequences with said information material.

3. (Original) An apparatus as claimed in claim 2, wherein said predetermined data sequences are Pseudo-Random Symbol or Bit Sequences.

4. (Original) An apparatus as claimed in claim 1, wherein said data items include meta data describing the content or providing an indication of an attribute of said information material in which the data is embedded.

5. (Original) An apparatus as claimed in claim 4, wherein said meta data includes a Unique Material Identifier (UMID), said UMID being given a higher predetermined relative importance than other meta data.

6. (Original) An apparatus as claimed in claim 5, wherein said UMID includes a plurality of data fields each of said fields representing a data item, each of said fields having a different relative importance.

7. (Original) An apparatus as claimed in claim 1, wherein said combining processor is operable in combination with said encoding processor not to embed selected data items if said limited

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capacity has been reached.

8. (Canceled)

9. (Original) An apparatus as claimed in claim 1, wherein said information material is an image.

10. (Currently Amended) An apparatus for embedding data in information material, said data including a plurality of data items, said data items having a different relative importance with respect to each other, said apparatus comprising:

an encoding processor operable to encode each of said data items ~~said encoding processor is operable to encode said data items~~ in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code;[[,]]

a combining processor operable to combine said encoded data items with said information material in accordance with an application strength; and[[,]]

a control processor operable to receive data indicative of said relative importance of said data items to be embedded and to control said encoding processor and said combining processor to encode and embed said data items in accordance with relative importance,

wherein ~~and~~ said combining processor is operable in combination with said encoding processor to allocate an amount of a limited data embedding capacity provided by said ~~material information~~information material, ~~and~~ each of said data items ~~are~~ being encoded and embedded to the effect that said proportion of said limited data embedding capacity and said application strength are allocated to said encoded data items in accordance with said relative

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importance and to embed control information in the information material indicative of at least one of the encoding and embedding applied to said data items.

11. (Original) An apparatus as claimed in claim 10, wherein said encoding processor includes a modulator operable to generate predetermined data sequences and to encode said data items by modulating said predetermined data sequences with data symbols of said data items, and to combine said modulated predetermined data sequences with said information material.

12. (Original) An apparatus as claimed in claim 11, wherein said predetermined data sequences are Pseudo-Random Symbol or Bit Sequences.

13. (Original) An apparatus as claimed in claim 10, wherein said data items include meta data describing the content or providing an indication of an attribute of said information material in which the data is embedded.

14. (Original) An apparatus as claimed in claim 13, wherein said meta data includes a Unique Material Identifier (UMID), said UMID being given a higher predetermined relative importance than other meta data.

15. (Original) An apparatus as claimed in claim 14, wherein said UMID includes a plurality of data fields each of said fields representing a data item, each of said fields having a different relative importance.

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16. (Original) An apparatus as claimed in claim 10, wherein said combining processor is operable in combination with said encoding processor not to embed selected data items if said limited capacity has been reached.

17. (Canceled)

~~19~~18. (Original) An apparatus as claimed in claim 10, wherein said information material is an image.

~~20~~19. (Currently Amended) An apparatus for embedding data in information material, said data including a plurality of data items, said data items having a different relative importance with respect to each other, said apparatus comprising:

an encoding processor operable to encode each of said data items; ~~, and~~

a combining processor operable to combine said encoded data items with said information material, ~~wherein said information material provides a limited data embedding capacity, and~~ said encoding processor ~~includes~~including a modulator operable to generate predetermined data sequences and to encode said data items by modulating said predetermined data sequences with data symbols of said data items, and to combine said modulated predetermined data sequences ~~with~~ within a limited data embedding capacity provided by said information material; and[[,]]

a control processor operable to receive data indicative of said relative importance of said data items to be embedded and to control said encoding processor and said combining processor to encode and embed said data items in accordance with relative importance.

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wherein said predetermined data sequences are allocated to the effect that a greater amount of spreading of said data items is provided to the more important data items in accordance with said limited data embedding capacity and the control processor is operable to embed control information in the information material indicative of at least one of the encoding and embedding applied to said data items.

~~21~~20. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said predetermined data sequences are Pseudo-Random Symbol or Bit Sequences.

~~22~~21. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said data items include meta data describing the content or providing an indication of an attribute of said information material in which the data is embedded.

~~23~~22. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said meta data includes a Unique Material Identifier (UMID), said UMID being given a higher predetermined relative importance than other meta data.

~~24~~23. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said UMID includes a plurality of data fields each of said fields representing a data item, each of said fields having a different relative importance.

~~25~~24. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said combining processor is operable in combination with said encoding processor not to embed selected data

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items if said limited capacity has been reached.

~~26~~25. (Canceled)

~~27~~26. (Currently Amended) An apparatus as claimed in claim ~~20~~19, wherein said information material is an image.

~~28~~27. (Currently Amended) An apparatus for detecting and recovering data embedded in information material, the data including a plurality of data items having a different relative importance with respect to each other, the data having been encoded and embedded in accordance with a different relative importance, and amount of redundant data being included in said encoded data items in accordance with relative importance, each of said data items being encoded and embedded to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance, and the data includes control information indicative of at least one of the encoding and embedding applied to said data items ~~using the apparatus~~, said apparatus comprising:

a detection processor operable to detect and to generate a recovered version of said embedded encoded data items from said information material and said control information; [[,]] and

a decoding processor operable to decode and to recover said data items in accordance with the encoding applied to said recovered encoded data items according to the relative importance of said data items, wherein said detection processor is operable to detect and to recover said control information, and in accordance with said control information to decode

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and to recover said data items.

~~29~~28. (Currently Amended) A method of embedding data in information material, said data being a plurality of data items each having a different relative importance, said method comprising:

receiving data indicative of said relative importance of said data items to be embedded;

~~allocating an amount of a limited data embedding capacity provided by said material information,~~

encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code; ~~, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance, and~~

combining said encoded data items with said information material;

controlling the encoding and the combining of said data items to the effect that an amount of said redundant data included in said encoded data items is allocated in accordance with said relative importance to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance; and

embedding control information in the information material indicative of at least one of the encoding and embedding applied to said data items.

~~, wherein said allocating and generating has an effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance.~~

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~~30~~29. (Currently Amended) A method of embedding data in information material, said data being a plurality of data items each having a different relative importance, said method comprising:

receiving data indicative of said relative importance of said data items to be embedded;

allocating an amount of a limited data embedding capacity provided by said ~~material information~~ information material in accordance with an application strength; [[,]]

encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance; ~~, and~~

combining said encoded data items with said information material; and

embedding control information in the information material indicative of the encoding and embedding applied to said data items,

wherein said allocating and generating has an effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance, and said application strength are allocated to said encoded data items in accordance with said relative importance.

~~wherein each of said data items are encoded and combined to the effect that said proportion of said limited data embedding capacity and said application strength are allocated to said encoded data items in accordance with said relative importance.~~

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~~31~~30. (Currently Amended) A method of embedding data in information material, said data being a plurality of data items each having a different relative importance, said method comprising:

receiving data indicative of said relative importance of said data items to be embedded;

allocating an amount of a limited data embedding capacity provided by said ~~material information~~information material in accordance with said relative importance,

encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance; ~~, and~~

generating predetermined data sequences;[[,]]

encoding said data items by modulating said predetermined data sequences with data symbols of said data items; ~~, and~~

combining said modulated predetermined data sequences with said information material; and

embedding control information in the information material indicative of at least one of the encoding and embedding applied to said data items,

wherein said predetermined data sequences are allocated to the effect that a greater amount of spreading of said data items is provided to the more important data items in accordance with said limited data embedding capacity.

~~32~~31. (Currently Amended) A method of embedding data in information material, said data

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being a plurality of data items each having a different relative importance, said method comprising:

receiving data indicative of said relative importance of said data items to be embedded;[[,]]

encoding each of said data items;[[,]]

combining said encoded data items with said information material within a limited data embedding capacity provided by said information material, said encoding and said combining of said data items being performed in accordance with said received relative importance of said data items, to the effect that a proportion of said limited data embedding capacity is allocated to said data items in accordance with said relative importance;[[,]] and

embedding control information indicative of at least one of the encoding and embedding applied to said data items.

~~33~~32. (Currently Amended) A method of detecting and recovering data embedded in information material, said data being a plurality of data items each having a different relative importance, the data having been encoded and embedded in said information material within a limited data embedding capacity provided by said information material to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance, and the embedded data also including control information indicative of at least one of the encoding and embedding applied to said data items ~~according to the method claimed in claim 32~~, said method comprising:

detecting the control information indicative of at least one of the encoding and embedding applied to the data items;

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detecting said embedded encoded data items from said information material to generate a recovered version of said encoded data items; [[,]] and

decoding said encoded data items using the control information to generate a recovered version of said data items in accordance with the encoding applied to said encoded data items according to the relative importance of said data items.

3433. (Currently Amended) An apparatus for embedding data in information material, said data including a plurality of data items, said apparatus comprising:

a combining processor operable to combine said encoded data items with said information material, said information material providing a limited data embedding capacity;[[,]] and

a control processor operable to select said data items in accordance with an order of relative importance and to control said combining processor to embed said selected data items in said information material within said limited data embedding capacity,

wherein said control processor ~~selecting~~selects said data items to the effect that more important data items are embedded before less important data items until said data embedding capacity limit is reached.

3534. (Currently Amended) An apparatus as claimed in claim 3433, wherein said data items include meta data describing the content or providing an indication of an attribute of said information material in which the data is embedded.

3635. (Currently Amended) An apparatus as claimed in claim 3534, wherein said meta data

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includes a Unique Material Identifier (UMID), said UMID being given a higher predetermined relative importance than other meta data.

~~37~~36. (Currently Amended) An apparatus as claimed in claim ~~34~~33, wherein said control processor is arranged to queue at least one data item which is not embedded within said limited data embedding capacity until sufficient data embedding capacity within said limit is available, and controls said combining processor to select at least one queued data item and embeds the selected queued data item in said ~~material~~ information material.

~~38~~37. (Original) A signal representing information material in which data has been embedded by an apparatus according to claim 1.

~~39~~38. (Original) A signal representing information material in which data has been embedded by an apparatus according to claim 10.

~~40~~39. (Currently Amended) A signal representing information material in which data has been embedded by an apparatus according to claim ~~20~~19.

~~41~~40. (Original) A computer program providing computer executable instructions, which when loaded on to a data processor configures said data processor to operate as an apparatus according to claim 1.

~~42~~41. (Original) A computer program providing computer executable instructions, which when

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loaded on to a data processor configures said data processor to operate as an apparatus according to claim 10.

~~43~~42. (Currently Amended) A computer program providing computer executable instructions, which when loaded on to a data processor configures said data processor to operate as an apparatus according to claim ~~20~~19.

~~44~~43. (Currently Amended) An apparatus for detecting and recovering data embedded in information material, said data comprising a plurality of source data items each having been encoded in accordance with a systematic error correction code to produce encoded data items each comprising the corresponding source data item and redundant data, said encoded data items being embedded in the information material, said apparatus comprising:

an embedded data detector operable to detect and generate a recovered version of said encoded data from said information material; [[,]]

an error processor operable, for each of said recovered encoded data items, to determine whether said recovered encoded data item is deemed too ~~errored~~ erroneous, and if not, decoding said encoded data item to generate a recovered version of said data item; [[,]]

a data store for storing said recovered version of said data item; [[,]] and

a recovery data processor operable, if said error processor determines that one of said recovered encoded data items is deemed too ~~errored~~ erroneous, to compare the source data item of said encoded data item, with at least one other source data item from said data store, and to estimate said source data item of said ~~errored~~ erroneous encoded data item in dependence upon a corresponding value of said at least one other recovered data item.

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4544. (Currently Amended) An apparatus as claimed in claim 4443, wherein said error processor is operable to determine whether each of said recovered encoded data items is erroneouserrored by estimating the number of erroneouserrored data symbols in each of said recovered encoded data items, and to compare said number of errors with a predetermined threshold, said recovered encoded data item being determined as erroneouserrored if said number of errors is greater than or equal to said threshold.

4645. (Currently Amended) An apparatus as claimed in claim 4443, wherein said recovery processor is operable to compare said source data item from said erroneouserrored encoded data item with at least one of a previous and a subsequent decoded and recovered data item, and to replace said source data item of said erroneouserrored encoded data item in accordance with at least one of said previous and subsequent source data items.

4746. (Currently Amended) An apparatus as claimed in claim 4645, wherein said recovery processor is operable, if said previous and said subsequent source data items have the same value to replace said source data item of said erroneouserrored encoded data item with the value of said previous or subsequent data items.

4847. (Currently Amended) An apparatus as claimed in claim 4645, wherein said recovery processor is operable, if said previous and said subsequent source data items have different values to replace said source data item of said erroneouserrored encoded data item with the value formed by interpolating between said previous and subsequent data items.

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4948. (Currently Amended) An apparatus as claimed in claim 4443, comprising an analysis processor operable to compare the content of the information material from which a plurality of recovered source data items and said erroneouserrored encoded data item have been detected, and to generate data representative of the comparison, wherein said recovery processor is operable to estimate said source data item of said erroneouserrored encoded data item in dependence upon said data representative of said comparison.

5049. (Currently Amended) An apparatus as claimed in claim 44 43, wherein each of said source data items comprises a plurality of data fields, and said recovery processor is operable to compare at least one of said data fields of said erroneouserrored encoded data item with the corresponding field of said at least one other recovered data item, and to replace said at least one of said fields of said erroneouserrored encoded data item with the corresponding field of said recovered data item in accordance with said comparison.

5150. (Currently Amended) An apparatus as claimed in claim 5049, wherein said recovery processor is operable, in dependence upon at least one of said data fields of said source data item being replaced, to determine in combination with said error processor whether said recovered encoded data item in which the data field is replaced is deemed to be too erroneouserrored, and if not, decoding said encoded data item to form a recovered version of said data item.

5251. (Currently Amended) An apparatus as claimed in claim 5049, wherein said recovery processor is operable, if said corresponding data field of a previous and a subsequent data items

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have the same value, to set said data field of said erroneouserrored encoded data item to the value of one of said previous and subsequent data items.

5352. (Currently Amended) An apparatus as claimed in claim 5049, wherein said recovery processor is operable, if said corresponding data field of a previous data item and a subsequent data item have different values, to replace said data field of said erroneouserrored encoded data item with a value formed by interpolating between said previous and subsequent data items.

5453. (Currently Amended) An apparatus as claimed in claim 5049, wherein said recovery processor is operable, to determine the difference between said corresponding data field of a previous data item and said corresponding data field of a subsequent data item, and if said difference is above a predetermined threshold to replace said data field of said erroneouserrored encoded data item which cannot be decoded with the value of said field of said previous data item and otherwise to form said replacement value by interpolating between said field of said previous and subsequent data items.

5554. (Currently Amended) An apparatus as claimed in claim 5049, comprising an analysis processor operable to compare the content of the information material from which a previous data item, a subsequent data item and said erroneouserrored encoded data items were detected, and to generate data representative of the comparison, wherein said recovery processor is operable to replace said data field of said erroneouserrored encoded data item which cannot be decoded with the value of said data field from one of said previous and said subsequent data items in dependence upon said comparison data.

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~~56~~55. (Currently Amended) An apparatus as claimed in claim ~~55~~54, wherein said analysis processor is arranged to estimate the content of the information material from a ~~colour~~color histogram or the like.

~~57~~56. (Currently Amended) An apparatus as claimed in claim 4443, wherein said information material is at least one of video, audio, data or audio/video material, and said source data items include meta data describing the content or attributes relating to said video, audio, data or audio/video material.

~~58~~57. (Currently Amended) An apparatus as claimed in claim ~~57~~56, wherein said data items include Unique Material Identifiers (UMIDs), and said data fields are the fields of said UMID, and said encoded data items are encoded UMIDs.

~~59~~58. (Currently Amended) An apparatus as claimed in claim ~~58~~57, wherein the data field of an erroneous~~errored~~ encoded UMID, which is recovered by interpolating contains data representative of the time code of said UMID.

~~60~~59. (Currently Amended) An apparatus as claimed in claim ~~58~~57, wherein the data field of an erroneous~~errored~~ encoded UMID, which is recovered by replacing the data field with data from the corresponding field of the previous encoded UMID, consequent upon a difference between the data fields of the previous and subsequent recovered UMIDs being above a predetermined threshold is representative of a clip identifier of said UMID.

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~~61~~60. (Currently Amended) An apparatus for embedding data into information material, said data comprising a plurality of source data items, said apparatus comprising:

an error correction encoder operable to encode each of said data items in accordance with a systematic error correction code to produce encoded data items each comprising the source data item and redundant data;[[,]] and

a combining processor operable to combine said encoded data items with said information material.

~~62~~61. (Currently Amended) An apparatus as claimed in claim ~~61~~60, wherein said data items include meta data such as UMIDs ~~or the like~~.

~~63~~62. (Currently Amended) A signal representative of information material in which data have been embedded by the apparatus claimed in claim ~~61~~60.

~~64~~63. (Currently Amended) A system for embedding and removing data from information material, said system comprising:

an apparatus for embedding the data into the information material, said data comprising a plurality of source data items, said apparatus for embedding comprising:

an error correction encoder operable to encode each of said data items in accordance with a systematic error correction code to produce encoded data items each comprising the source data item and redundant data; and

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a combining processor operable to combine said encoded data items with said information material; ~~according to claim 61~~, and

an apparatus for detecting and removing the data from the information material, said apparatus for detecting and recovering comprising:

an embedded data detector operable to detect and generate a recovered version of said encoded data from said information material; [[,]]

an error processor operable, for each of said recovered encoded data items, to determine whether said recovered encoded data item is deemed too erroneous, and if not, decoding said encoded data item to generate a recovered version of said data item; [[,]]

a data store for storing said recovered version of said data item; [[,]] and

a recovery data processor operable, if said error processor determines that one of said recovered encoded data items is deemed too erroneous, to compare the source data item of said encoded data item, with at least one other source data item from said data store, and to estimate said source data item of said erroneous encoded data item in dependence upon a corresponding value of said at least one other recovered data item. ~~according to claim 44.~~

~~65~~64. (Currently Amended) A method of detecting and recovering data embedded in information material, said data comprising a plurality of source data items each having been encoded in accordance with a systematic error correction code to produce encoded data items, each encoded data item comprising the corresponding source data item and redundant data, said encoded data items being embedded in the information material, said method comprising:

detecting and generating a recovered version of said encoded data items from said information material; [[,]]

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determining, for each of said encoded data items, whether the recovered version of said encoded data item is deemed too errored, and

if not, decoding said encoded data item to generate a recovered version of said data item, and storing said recovered version of said data item, and

if said ~~errored~~ erroneous encoded data item is deemed too erroneous~~errored~~, comparing said source data from said ~~errored~~ erroneous encoded data item with at least one other source data item from said data store, and estimating said source data item of said erroneous~~errored~~ encoded data item in dependence upon a corresponding value of said other recovered data item.

~~66~~65. (Currently Amended) A method of embedding data in information material, said data comprising a plurality of source data items, said method comprising:

encoding each of said data items in accordance with a systematic error correction code to produce encoded data items each comprising the corresponding said source data item and redundant data;[[,]] and

combining said encoded data items with said information material.

~~67~~66. (Currently Amended) A computer program providing computer executable instructions, which when loaded on to a data processor configures said data processor to operate as an apparatus according to claim ~~44~~43.

~~68~~67. (Original) A computer program having computer executable instructions, which when loaded on to a data processor causes the data processor to perform the method according to claim

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65.

~~69~~68. (Currently Amended) A computer program product having a computer readable medium having recorded thereon information signals representative of the computer program claimed in claim ~~67~~66.

~~70~~69. (Currently Amended) A computer program product having a computer readable medium having recorded thereon information signals representative of the computer program claimed in claim ~~68~~67.

~~71~~70. (Currently Amended) An apparatus for embedding data in information material, said data being a plurality of data items each having a different relative importance, said apparatus comprising:

means for receiving data indicative of said relative importance of said data items to be embedded;

means for allocating an amount of a limited data embedding capacity provided by said ~~material information~~information material; [[,]]

means for encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance; ~~, and~~

means for controlling the means encoding and the means for combining of said data items in accordance with said relative importance to the effect that an amount of said

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redundant data included in said encoded data items is allocated in accordance with said relative importance to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance;

means for combining said encoded data items with said information material; and

means for embedding control information in the information material indicative of at least one of the encoding and embedding applied to said data items,

wherein said allocating and generating has an effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance.

~~72~~71. (Currently Amended) An apparatus for embedding data in information material, said data being a plurality of data items each having a different relative importance, said apparatus comprising:

means for receiving data indicative of said relative importance of said data items to be embedded;

means for allocating an amount of a limited data embedding capacity provided by said ~~material information~~information material in accordance with an application strength; [[,]]

means for encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance; ~~, and~~

means for combining said encoded data items with said information material;[[,]] and

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means for embedding control information in the information material indicative of at least one of the encoding and embedding applied to said data items,

wherein said allocating and generating has an effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance and said application strength are allocated to said encoded data items in accordance with said relative importance. ~~, wherein each of said data items are encoded and combined to the effect that said proportion of said limited data embedding capacity and said application strength are allocated to said encoded data items in accordance with said relative importance.~~

~~73~~72. (Currently Amended) An apparatus for embedding data in information material, said data being a plurality of data items each having a different relative importance, said apparatus comprising:

means for receiving data indicative of said relative importance of said data items to be embedded;

means for allocating an amount of a limited data embedding capacity provided by said ~~material information~~information material; [[,]]

means for encoding each of said data items in accordance with at least one error correction code, said encoded data items including redundant data introduced by said error correction code, an amount of said redundant data included in said encoded data items being allocated in accordance with said relative importance; ~~, and~~

means for generating predetermined data sequences;[[,]]

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means for encoding said data items by modulating said predetermined data sequences with data symbols of said data items; and ~~, and~~

means for combining said modulated predetermined data sequences with said information material,

wherein said predetermined data sequences are allocated to the effect that a greater amount of spreading of said data items is provided to the more important data items in accordance with said limited data embedding capacity.

~~74~~73. (Currently Amended) An apparatus for embedding data in information material, said data being a plurality of data items each having a different relative importance, said apparatus comprising:

means for receiving data indicative of said relative importance of said data items to be embedded;[[,]]

means for encoding each of said data items;[[,]]

means for combining said encoded data items with said information material within a limited data embedding capacity provided by said information material,

said encoding and said combining of said data items being performed in accordance with said received relative importance of said data items, to the effect that a proportion of said limited data embedding capacity is allocated to said data items in accordance with said relative importance;[[,]] and

means for embedding control information indicative of at least one of the encoding and embedding applied to said data items.

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~~75~~74. (Currently Amended)An apparatus for detecting and recovering data embedded in information material, said data being a plurality of data items each having a different relative importance, the data having been encoded and embedded in said information material within a limited data embedding capacity provided by said information material to the effect that a proportion of said limited data embedding capacity is allocated to said encoded data items in accordance with said relative importance, and the embedded data also including control information indicative of at least one of the encoding and embedding applied to said data items, said apparatus comprising:

means for detecting the control information indicative of at least one of the encoding and embedding applied to the data items;

means for detecting said embedded encoded data from said information material to generate a recovered version of said encoded data; and ~~, and~~

means for decoding said encoded data items using the control information to generate a recovered version of said data items in accordance with the encoding applied to said encoded data items according to the relative importance of said data items.

~~76~~75. (Currently Amended) An apparatus for detecting and recovering data embedded in information material, said data comprising:

a plurality of source data items each having been encoded in accordance with a systematic error correction code to produce encoded data items, each encoded data item comprising the corresponding source data item and redundant data, said encoded data items being embedded in the information material, said apparatus comprising:

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means for detecting and generating a recovered version of said encoded data items from said information material;[[,]]

means for determining, for each of said encoded data items, whether the recovered version of said encoded data item is deemed too ~~errored~~ erroneous;[[,]] ~~and~~

means for decoding said encoded data item if said encoded data item is not too erroneous~~errored~~, to generate a recovered version of said data item, and storing said recovered version of said data item, and if said erroneous~~errored~~ encoded data item is deemed too erroneous~~errored~~;[[,]] and

means for comparing said source data from said erroneous~~errored~~ encoded data item with at least one other source data item from said data store, and means for estimating said source data item of said erroneous~~errored~~ encoded data item in dependence upon a corresponding value of said other recovered data item.

~~77~~76. (Currently Amended) An apparatus for embedding data in information material, said data comprising a plurality of source data items, said apparatus comprising:

means for encoding each of said data items in accordance with a systematic error correction code to produce encoded data items each comprising the corresponding said source data item and redundant data;[[,]] and

means for combining said encoded data items with said information material.

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